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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference 31116.014.WO	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/US04/08614	International filing date (day/month/year) 22 March 2004 (22.03.2004)	Priority date (day/month/year) 24 March 2003 (24.03.2003)	
International Patent Classification (IPC) or national classification and IPC IPC(7): B62K 27/00 and US Cl.: 280/204, 292, 498; 224/427, 425			
Applicant CURTIS FREDERICK			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:

- a. ☐ (sent to the applicant and to the International Bureau) a total of ___ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
- b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the report
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 30 September 2004 (30.09.2004)	Date of completion of this report 05 October 2005 (05.10.2005)
Name and mailing address of the IPEA/ US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450	Authorized officer Tony H. Winner <i>-P Volpe for</i>
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Form PCT/IPEA/409 (cover sheet)(April 2005)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/US04/08614

Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☐ the international application in the language in which it was filed.
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4(a))
- ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-10 _____ as originally filed/furnished
- pages* NONE _____ received by this Authority on _____
- pages* NONE _____ received by this Authority on _____
- ☒ the claims:
- pages 11-16 _____ as originally filed/furnished
- pages* NONE _____ as amended (together with any statement) under Article 19
- pages* NONE _____ received by this Authority on _____
- pages* NONE _____ received by this Authority on _____
- ☒ the drawings:
- pages 1-3 _____ as originally filed/furnished
- pages* NONE _____ received by this Authority on _____
- pages* NONE _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US04/08614**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>3-7, 9-15, 18-31</u>	YES
	Claims <u>1, 2, 8, 16, 17</u>	NO
Inventive Step (IS)	Claims <u>3-7, 9-11, 22-24</u>	YES
	Claims <u>1, 2, 8, 12-21, 25-31</u>	NO
Industrial Applicability (IA)	Claims <u>1-31</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and Explanations (Rule 70.7)
Please See Continuation Sheet

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

V. 2. Citations and Explanations:

1. Claims 1, 2, 8, 16, and 17 lack the novelty under PCT Article 33(2) as being anticipated by Couture (US. patent 5,842,710).

Couture discloses a bicycle towing device for towing a trailing bicycle behind a leading bicycle, comprising:

- a. A leading bicycle connection member connectable to a leading bicycle;
- b. A trailing bicycle connection member having an upper frame connection member and a lower frame connection member, the lower frame connection member being connectable to a front fork of the trailing bicycle and the upper frame connection member being connectable to a portion of the trailing bicycle above the front fork;
- c. A tow bar interconnecting the leading bicycle connection member to the trailing bicycle connection member.

With regard to claims 2, 8, 16, and 17 Couture discloses all of the claimed limitations.

2. Claims 12-14, 18-21, 26-28, and 30-31 lack an inventive step under PCT Article 33(3) as being obvious over Couture in view of Cobb, Jr. (US. patent 5,641,173).

With regard to claim 18, Couture is disclosed above but lacks the teaching of a bi-directional joint that connected to the first clamp.

Cobb teaches a towing device for a cycling trailer using a latching universal joint (bi-directional joint) for providing the cycling with greater articulation between the cycling and the trailing vehicle.

Based on the teaching of Cobb, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the towing device of Couture to include the latching universal joint of Cobb so as to provide greater range of articulation between the cycling and the trailing vehicle.

The same logic of rejection above is also applied to claims 12-14.

With regard to claims 19-21, 26-28, and 30-31, Couture as modified by Cobb discloses all of the claimed limitations.

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Supplemental Box

3. Claims 15, 25, and 29 lack an inventive step under PCT Article 33(3) as being obvious over Couture in view of Cobb, Jr.

Couture as modified by Cobb discloses the claimed invention except for the use of interchangeable insert that provides a gripping surface for the gripping the leading bicycle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use any suitable inserts for the clamping device so as to provide better fitting between two mating components/structure, since the insert material are well known for their use in the coupling/mating art and the selection of any of these known equivalent inserts would be within the level of ordinary skill in the art.

4. Claims 1-31 meet the criteria set out in PCT Article 33(4), and thus meet industrial applicability because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----